

ABSTRACT

The object of this invention is to provide an apparatus for reconstructing, from a plurality of images that are focused differently, an arbitrarily focused image that is an image wherein the degree of blur at any depth is suppressed or intensified. A first filter for converting a first image that is in focus in a first portion based on a first blur parameter input from the outside, a second filter for converting a second image that is in focus in a second portion based on a second blur parameter input from the outside, a synthesizer for synthesizing the output of the first filter and the output of the second filter and generating an arbitrarily focused image, and a brightness compensator for performing brightness correction in image block units so that the brightness of the first image and of the second image become about the same, and supplying the images after brightness correction to the first filter and the second filter, are provided.